IN THE CLAIMS

1. (Previously presented) A method, comprising:

packetizing calls for transmission over a communication link having a particular bandwidth threshold;

monitoring an amount of bandwidth being used to transmit the packetized calls on said communication link;

feeding back to a call admission control mechanism a signal to limit new calls admitted when the bandwidth being used approaches said particular bandwidth threshold;

identifying packetized calls that are lower priority than remaining packetized calls when the bandwidth being used approaches said particular bandwidth threshold;

when one or more lower priority calls are identified, suppressing the lower priority calls by reducing an amount of transmitted packets corresponding to the lower priority calls to provide bandwidth for the new calls; and

when there are no identified lower priority calls, selecting one or more of the packetized calls for suppression regardless of whether the packetized calls are all equal priority so that non-selected calls are completely unsuppressed such that only the selected calls are affected by over-subscription.

2. (Previously presented) The method recited in claim 1 wherein the monitoring is performed after the packetized calls are established and while the packetized calls are in progress, such that actual, non-predicted bandwidth usage is observed for the packetized calls.

3. (Cancelled)

4. (Previously presented) A system, comprising:

a call admission control mechanism which controls the admission of calls for transmission over a packet communication link;

loss-less codecs which compress and packetize calls for transmission over said communication link;

a monitoring system for monitoring an observed amount of bandwidth being used on said communication link such that loss-less codes that are currently fully utilizing corresponding subchannels are identified;

a feedback path from said monitoring system to said admission control mechanism whereby calls admitted for transmission over said link are limited when the amount of bandwidth being used on said link approaches a predetermined amount; and

the call admission control mechanism assigning a new call to one of the non-identified loss-less codecs responsive to said monitoring when the amount of bandwidth being used on said link does not approach the predetermined amount.

5. (Original) The system recited in claim 4 wherein at least some of the calls being transmitted over said communication link are identified as lower priority calls, and where a policing mechanism restricts the number of packets transmitted for said lower priority calls when the bandwidth usage on said link reaches a predetermined amount.

6. (Original) The method recited in claim 1 wherein said communication link connects a Base Transceiver Station to a Base Station Controller.

7. (Original) The system recited in claim 4 wherein said communication link connects a Base Transceiver Station to a Base Station Controller.

8. (Original) The method recited in claim 6 wherein said Base Transceiver Station and said Base Station Controller operate using the Global System for Mobile Communication" (GSM) system protocol.

9. (Original) The system recited in claim 7 wherein said Base Transceiver Station and said Base Station Controller operate using the Global System for Mobile Communication" (GSM) system protocol.

10. (Previously presented) The method recited in claim 8 wherein the packetized calls are packetized using loss-less codecs and each of said loss-less codecs is associated with one DS0 channel and handles four telephone calls.

11. (Original) The system recited in claim 9 wherein each of said loss-less codecs is associated with one DS0 channel and handles four telephone calls.

12. (Currently amended) A method ~~system~~, comprising:

compressing traffic for transmission over a communication link using a plurality of digital signal processors, said digital signal processors implementing one or more codecs that produce variable bit rate data streams;

monitoring an observed amount of bandwidth being used on said communication link such that ones of the digital signal processors approaching or at utilization capacity are identified, said observed amount of bandwidth associated with existing calls on the communication link;

admitting a new call for transmission over said communication link according to whether the amount of bandwidth being used on said communication link is below a predetermined amount; and

assigning the new call to one of the non-identified digital signal processors according to said monitoring.

~~means for packetizing telephone calls using loss-less codecs for transmission on a communication link having a particular bandwidth threshold;~~

~~means for monitoring a non-averaged, non-predicted, actual amount of bandwidth being used to transmit calls on said communication link such that transmitted calls temporarily including spurts of voice activity are identified as using more bandwidth than calls temporarily including periods of silence; and~~

~~means for feeding back to a call admission control mechanism a signal to limit the calls admitted when the bandwidth being used approaches said particular bandwidth threshold.~~

13. (Currently amended) A telephone call communication system including:

means for monitoring an amount of bandwidth being used to transmit calls on a communication link associated with a particular bandwidth threshold;

means for feeding back to a call admission control mechanism a signal to limit new calls admitted if the bandwidth being used approaches or reaches said particular bandwidth threshold;

means for identifying any calls that are lower priority than any remaining calls if the bandwidth being used approaches said particular bandwidth threshold;

means for suppressing the lower priority calls to provide bandwidth for the new calls if one or more lower priority calls are identified; and

means for selecting one or more of the calls for suppression if no lower priority calls are identified, said selection occurring regardless of whether the calls are all equal priority so that non-selected calls are completely unsuppressed such that only the selected calls are affected by over-subscription.

~~a call admission control system for admitting calls for transmission by said communication system;~~

~~a packet transmission link having a particular bandwidth threshold;~~

~~loss-less codecs for packetizing telephone calls for transmission on said packet transmission link;~~

~~a mechanism for observing a currently used amount of bandwidth being used to transmit each of the calls on said packet transmission link, the currently used amount of bandwidth being non-averaged and different for at least two of the calls; and~~

~~a feedback mechanism for feeding back to said call admission control system a signal to limit admitted calls when the bandwidth being used approaches said particular bandwidth threshold.~~

14. (Currently amended) The method ~~system~~ recited in claim 12 wherein said communication link connects a Base Transceiver Station to a Base Station Controller.

15. (Original) The system recited in claim 13 wherein said communication link connects a Base Transceiver Station to a Base Station Controller.

16. (Currently amended) The method ~~system~~ recited in claim 14 wherein said Base Transceiver Station and said Base Station Controller operate using the Global System for Mobile Communication" (GSM) system protocol.

17. (Original) The system recited in claim 15 wherein said Base Transceiver Station and said Base Station Controller operate using the Global System for Mobile Communication" (GSM) system protocol.

18. (Currently amended) The method ~~system~~ recited in claim 12 wherein each of said ~~loss-less~~ codecs is associated with one DS0 channel and handles four telephone calls.

19. (Currently amended) The system recited in claim 13 wherein the calls are transmitted using loss-less codes and each of said loss-less codecs is associated with one DS0 channel and handles four telephone calls.

20. (Currently Amended) An apparatus ~~A method~~, comprising:

one or more processors; and

a memory coupled to the one or more processors comprising instructions executable by the processors, the processors operable when executing the instructions to:

monitor an amount of bandwidth being used to transmit calls on a communication link associated with a particular bandwidth threshold;

feed back to a call admission control mechanism a signal to limit new calls admitted if the bandwidth being used approaches or reaches said particular bandwidth threshold;

identify any calls that are lower priority than any remaining calls if the bandwidth being used approaches said particular bandwidth threshold;

if one or more lower priority calls are identified, suppress the lower priority calls to provide bandwidth for the new calls; and if no lower priority calls are identified, select one or more of the calls for suppression regardless of whether the calls are all equal priority such that only the selected calls are affected by over-subscription.

~~packetizing telephone calls using loss-less codecs for transmission on a communication link that connects a base transceiver station and a base station controller;~~

~~monitoring the amount of bandwidth being used to transmit calls on said communication link that includes a particular bandwidth limit;~~

~~feeding back to a call admission control mechanism that is connected to a transmission side of the communication link a signal to limit new calls when the bandwidth being used approaches said particular bandwidth limit;~~

~~admitting the news calls without reducing an amount of packets used for the transmitted calls when the signal indicates that the particular bandwidth limit is not approached; and~~

~~when the signal indicates that the particular bandwidth limit is being approached, admitting the new calls and reducing an amount of packets transmitted for only a selected number of the transmitted calls without reducing an amount of packets used for the remaining transmitted calls regardless of whether the selected calls have a same identified priority as the remaining transmitted calls.~~

21. (Currently Amended) A system, comprising:

means for compressing traffic for transmission over a communication link using a plurality of digital signal processors, said digital signal processors implementing one or more loss-less codecs;

means for monitoring an observed amount of bandwidth being used on said communication link such that ones of the digital signal processors approaching or at utilization capacity are identified, said observed amount of bandwidth associated with existing calls on the communication link;

means for admitting a new call for transmission over said communication link according to whether the amount of bandwidth being used on said communication link is below a predetermined amount; and means for assigning the new call to one of the non-identified digital signal processors according to said observed bandwidth amount.

~~means for admitting calls for transmission on a communication link that connects a base transceiver station and a base station controller operating according to the Global System for Mobile Communication" (GSM) system protocol and includes a particular bandwidth limit;~~

~~means for packetized telephone calls admitted for transmission on said communication link;~~

~~means for monitoring an observed amount of bandwidth being used to transmit calls on said communication link; and~~

~~means for feeding back to said call admission control mechanism a signal to limit the calls admitted when the bandwidth being used approaches said particular bandwidth limit.~~

22. (Currently amended) The system of claim 4 wherein said monitoring means ~~system~~ monitors the amount of bandwidth being used ~~after transmission of the calls and~~ independently of any predicted bandwidth estimates that are produced before the existing calls are admitted ~~transmitted~~, such that non-predicted, actual bandwidth usage is observed ~~for the transmitted calls~~.

23. (Currently amended) The apparatus ~~method~~ of claim 20, wherein the processors are operable to perform the monitoring ~~is performed~~ after the calls are established and while the calls are in progress and independently of any predicted bandwidth estimates that are produced before the calls are transmitted, such that actual bandwidth usage is observed for the calls.

24. (Currently Amended) An apparatus, comprising:

one or more processors; and

a memory coupled to the one or more processors comprising instructions executable by the processors, the processors operable when executing the instructions to:

compress traffic for transmission over a communication link using a plurality of digital signal processors, said digital signal processors implementing one or more codecs that produce variable bit rate data streams;

monitor an observed amount of bandwidth being used on said communication link to identify ones of the digital signal processors approaching utilization capacity, said observed amount of bandwidth associated with existing calls on the communication link;

admit a new call for transmission over said communication link according to whether the amount of bandwidth being used on said communication link approaches a predetermined amount; and

assign the new call to one of the non-identified digital signal processors.

~~admit new calls to a communication link without suppressing existing calls when a feedback signals that existing calls are not currently consuming an amount of bandwidth that approaches a bandwidth threshold for the communication link; and~~

~~admit the new calls to the communication link and suppress selected ones of the existing calls when the feedback signals that the existing calls are currently consuming an amount of bandwidth that does approach the bandwidth threshold~~

25. (Currently Amended) The apparatus of claim 24 wherein admission of the new call is based on ~~of the new calls and suppression of the selected ones of the existing calls is responsive to~~ feedback representing actual bandwidth usage that is independent of any bandwidth estimates generated before the existing calls were admitted ~~are included~~ on the communication link.

26. (Currently Amended) The apparatus of claim 25 wherein the processors are further operable to select ones of the existing calls for suppression ~~the suppressed calls~~ according to priority prior to admitting the new call.

27. (Currently Amended) The apparatus of claim 25 wherein the processors are further operable to select one of the existing calls for suppression, said selection being independent of priority when the existing calls do not have different priority indications ~~the selected calls are not identified as being any lower priority than the non-selected calls~~.